CLAIMS

What is claimed is:

1. A method of modulating the function of transcription factors by administering an effective amount of an oligonucleotide containing optimal nucleotide binding sites for the transcription factor.

2. The method according to claim 1, wherein said administering step further includes administering an effective amount of an oligonucleotide for downregulating the function of transcription factors.

3. A method of modulating the function of the STAT family of transcription factors by administering an effective amount of an oligonucleotide containing optimal binding sites for the STAT family of transcription factors.

4. A method of modulating the function of NF kappa B by administering an effective amount of an oligonucleotide which competitively binds the NF kappa B.

5. A therapeutic agent comprising an effective amount of an oligonucleotide for modulating the function of transcription factors and a pharmaceutically acceptable carrier.

6. A treatment for patients having illnesses in which activation of transcription factors play a role by administering to a patient an effective amount of an oligonucleotide which competitively binds a transcription factor of the related illness.

7. A method of inhibiting a transcription factor in a cell by administering an effective amount of a double stranded oligonucleotide, the oligonucleotide having a sequence bound by the transcription factor.

8. A pharmaceutical composition for inhibiting a transcription factor in a cell comprising an effective amount of a double stranded oligonucleotide, said

oligonucleotide having a sequence bound by a transcription factor.

9. The pharmaceutical composition according to claim 9, wherein in which said transcription factor is activated.

10. The pharmaceutical composition according to claim 9, wherein said transcription factor is constitutively activated.

11. The pharmaceutical composition according to claim 9, wherein the cell is a malignant cell.

12. The pharmaceutical composition according to claim 9, wherein the cell is a leukemia cell.

13. The pharmaceutical composition according to claim 8, wherein said transcription factor is STAT5 and said oligonucleotide contains the sequence TTCNNNGAA, in which "N" is any nucleotide.

14. The pharmaceutical composition according to claim 13, wherein said oligonucleotide is selected from the group comprising an oligonucleotides having the sequence TTCCCCGAA.

15. The pharmaceutical composition according to claim 13, wherein said oligonucleotide is selected from the group comprising an oligonucleotides having the sequence AGATTTCTAGGAATTCAAATC (SEQ ID NO:1), GCCTGATTTCCCCGAAATGACGGCA (SEQ ID NO:2) and GTATTTCCCAGAAAAGGAAC (SEQ ID NO:3).

~~16~~. A method of inhibiting malignant proliferation by administering an effective amount of a double stranded oligonucleotide, the oligonucleotide having a sequence bound by a transcription factor, the transcription factor activity being correlated to malignant proliferation.

17. A therapeutic agent comprising an effective amount of the oligonucleotide of claim 13 for modulating the function of transcription factors and a pharmaceutically acceptable carrier.

SUB A3

18. A therapeutic agent comprising an effective

SUB A3 (cont'd)

amount of the oligonucleotide of claim 14 for modulating the function of transcription factors and a pharmaceutically acceptable carrier.

~~19~~. A method of removing malignant cells in vitro by exposing a cell culture to an effective amount of oligonucleotide containing optimal nucleotide binding sites for a transcription factor.

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